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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,309	12/18/2000	Sehjoon Dokko	P-156	2257

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EXAMINER

IQBAL, KHAWAR

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,309

Applicant(s)

DOKKO, SEHJOON

Examiner

Khawar Iqbal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3,5-9 are rejected under 35 U.S.C. 102(e) as being unpatentable by Basu et al (6097733).

3. Regarding claim 1 Basu et al teaches a method for allocating channels for radio data calls comprising (figs. 7-9):

receiving a data call connection request (col. 12, lines 24-35); determining a traffic attribute of the data call (col. 13, lines 4-20);

determining an occupied bandwidth of each of a plurality of channels of a transmission link occupied by other connected calls (col.2, lines 33-47, col. 12, lines 23-65); and

dynamically allocating the data call among the plurality of channels based on the traffic attribute and the occupied bandwidth (col.2, lines 33-47, col. 3, line 38-col. 4, line 2, col. 6, lines 23-65).

Regarding claim 2 Basu et al teaches wherein a bandwidth of the data call is determined based on the traffic attribute and the bandwidth occupied by the

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other connected data calls is determined based on a number of other data calls and prescribed weight values of each of the other data calls (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Regarding claims 3 Basu et al teaches wherein the weight value is allocated in a unit form according to a rate of the bandwidth (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Regarding claim 5 Basu et al teaches wherein a mobile switching system subtracts an occupied channel bandwidth from a maximum allowable channel bandwidth to determine whether there is a minimum available bandwidth in each channel, and allocates the channel having the least occupied bandwidth if no channel has the minimum available bandwidth (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Regarding claim 6 Basu et al teaches wherein the maximum allowable bandwidth is 30 units (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Regarding claim 7 Basu et al teaches wherein a mobile switching system allocates a channel having the least available bandwidth if a requested bandwidth of the data call is greater than a prescribed bandwidth and the channel having an available bandwidth exists (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 7, lines 10-30, col. 13, line 55-col. 14, lines 30).

Regarding claim 8 Basu et al teaches wherein a mobile switching system allocates a channel having the least occupied bandwidth if a requested

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bandwidth of the data call is smaller than a prescribed reference bandwidth and the channel having an available bandwidth exists.

Regarding claim 9 Basu et al teaches wherein the traffic attribute is determined based on a service option (col. 2, lines 33-47, col. 3, line 38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10,11,13-15,17-20, 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basu et al (6097733) and further in view of Yee et al (20020114301).

Regarding claims 10,11,18 and 25 Basu et al teaches a channel allocation method for radio data calls, comprising (figs. 7-9):

receiving a data call connection request (col. 12, lines 24-35); allocating an available time slot and link (col. 13, lines 4-20);

determining a requested bandwidth based on a service option of a received data call (col.2, lines 33-47); defining a weight value of the data call in accordance with the requested bandwidth (col. 12, lines 23-65, col. 13, line 55-col. 14, lines 30); and dynamically allocating an H.sub.0 channel on the link based on a number of connected data calls occupying each of a plurality of

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H.sub.0 channels and the weight value of each connected data call (col. 2, lines 33-47, col. 3, line 38-col. 4, line 2, col. 13, line 55-col. 14, lines 30, col. 6, lines 23-65). Basu et al teaches communication system for providing multimedia and voice communications to wireless mobile units, has bandwidth allocator of wireless service interface to allocate bandwidth for communications. A system (100) comprises base station (102) coupled to base station controller, with a bandwidth to provide wireless coverage within a cell. A wireless service interface (106) coupled to the base station and its controller has a bandwidth allocator (108) to allocate bandwidth among transmit-receive multimedia and voice communications in response to requirements of wireless mobile units (col. 2, lines 33-47). Basu et al does not specifically teach E1 link.

In an analogous art, Yee et al teaches E1 link (paragraph # 0092).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Basu et al by specifically adding feature E1 link to support the multimedia call in order to enhance system performance of the system purpose of increasing efficiency telecommunication system as taught by Yee et al.

Regarding claim 13 Basu et al teaches determining whether the requested bandwidth is greater than a reference bandwidth, computing a bandwidth occupied by the connected data calls; subtracting the occupied bandwidth from a maximum allowable bandwidth for each H.sub.0 channel, to determine whether any available bandwidth exists in each H.sub.0 channel; and allocating an H.sub.0 channel having the least occupied bandwidth if no H.sub.0 channel

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exists (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Regarding claims 14,19 Basu et al teaches allocating an H.sub.0 channel having the least available bandwidth if the requested bandwidth is greater than the reference bandwidth and a H.sub.0 channel having available bandwidth exists; and allocating a H.sub.0 channel having the least occupied bandwidth if the requested bandwidth is smaller than the reference bandwidth and a H.sub.0 channel having available bandwidth exists (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Regarding claims 15,20 Basu et al teaches wherein the weight value is allocated in a unit form according to a rate of the requested bandwidth (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

Regarding claim 17,22-24 Basu et al teaches wherein the maximum allowable bandwidth is 390 Kbps (col. 2, lines 33-47, col. 3, line38-col. 4, line 2, col. 13, line 55-col. 14, lines 30).

6. Claims 4,12,16,21 rejected under 35 U.S.C. 103(a) as being unpatentable over Basu et al (6097733) and further in view of Yee et al (20020114301) and Martin et al (5960039).

7. Regarding claims 4,12,16,21 Basu et al teaches significant Internet browsers when receiving HTML web pages often require data transmission. HTML web pages may include many kilobytes or megabytes of information (col. 9, lines 25-45). Basu et al and Yee et al does not specifically teach 128 Kbps-based high speed data call comprises 10 units. In an analogous art, Martin et al

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teaches 128 Kbps-based high speed data call comprises 10 units (col. 7, lines 7-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Basu et al and Yee et al by specifically adding feature 128 Kbps-based high speed data to support the multimedia call in order to enhance system performance of the system purpose of increasing efficiency as taught by Martin et al.

8. Response to Arguments

Applicant's arguments filed 4-27-04 have been fully considered but they are not persuasive. The examiner has thoroughly reviewed applications argument but firmly believes the cited references reasonably and properly meets the claim limitation. Applicant argument was that "determining an occupied bandwidth of each of a plurality of channels of a transmission link occupied by other connected calls" and "dynamically allocating the data call among the plurality of channels based on the traffic attribute and the occupied bandwidth" as recited in claims 1 and "link based on a number of connected data calls occupying each of a plurality of H.sub.0 channels and the weight value of each connected data call" as recited in claims 11 and 18. In response to applicant' arguments, examiner would like to point out that Basu et al teaches if system determines the nature of the access request as a valid voice service request at step 706, voice bandwidth to the requesting wireless mobile unit is allocated at step 706. If system determines whether multimedia interface bandwidth is required for the particular mobile unit and system determines that the mobile unit has requested no voice

bandwidth, the system then determines whether the mobile unit requires multimedia bandwidth at step 726. If multimedia bandwidth is not required at step 726, operation proceeds again to step 701. However, if multimedia bandwidth is required, operation proceeds to step 728 wherein a default level of multimedia bandwidth is allocated by the system to the mobile unit (fig. 7), which reads on the bandwidth occupation of the channels used for voice and multimedia being known determined. In response to applicant's other arguments, examiner would like to point out that Basu et al teaches in the communication system 100, the bandwidth allocator includes a service interface 106 located in the base station 102 and multimedia interfaces 118A-118C located in the mobile units 104A-104C, respectively. Such service interface 106 and multimedia interfaces 118A-118C operate in cooperation to allocate the available bandwidth within the communication system 100 bandwidth in response to **wireless multimedia communication requirements to achieve a minimum transmission rate for the multimedia communications and reallocated as is required to meet the minimum transmission rate for multimedia communications** (col. 5, lines 10-25). And during light loading periods, a wireless mobile unit, 104C for example, may be allocated sufficient bandwidth to meet the minimum transmission rate (col. 6, lines 55-62). Therefore, the management capabilities provide feedback to a system manager, indicating to the manager how well the communication system is performing in meeting the minimum transmission rate. The system manager may then allocate system

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resources to adjust the available bandwidth in the communication system based upon the traffic information provided.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **BANKS-HAROLD, MARSHA**, can be reached at 703-305-4379.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:

(703) 872-9314 (for Technology Center 2684 only)

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Khawar Iqbal



**CHARLES APPIAH
PRIMARY EXAMINER**